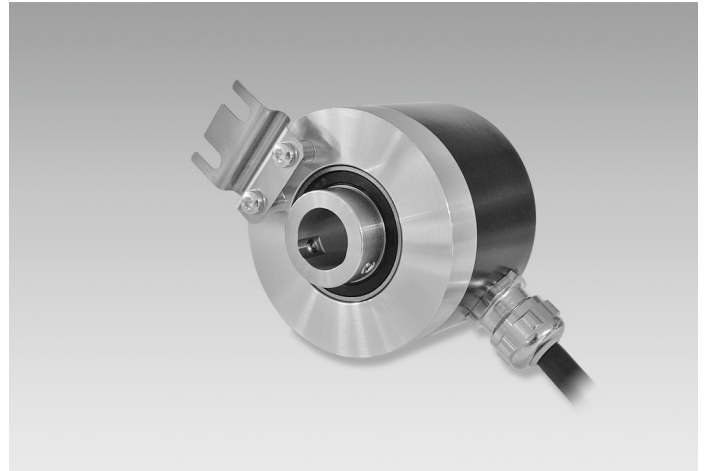


ITD 20 A 4

Blind hollow shaft $\varnothing 8$ to $\varnothing 14$ mm
50...1024 pulses per revolution

Overview

- Encoder with blind hollow shaft up to $\varnothing 14$ mm
- Max. 1024 pulses per revolution
- Optical sensing method
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial or axial



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	50 ... 1024
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 120 kHz
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 8$...14 mm (blind hollow shaft)

Technical data - mechanical design

Mounting kit	001
Protection EN 60529	IP 65
Operating speed	≤ 8000 rpm ≤ 5000 rpm IP 65 ($> 70^\circ\text{C}$)
Starting torque	≤ 0.01 Nm ($+20^\circ\text{C}$)
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20 ... $+70^\circ\text{C}$ -20 ... $+100^\circ\text{C}$
Relative humidity	90 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 55-2000 Hz EN 60068-2-27 Shock 100 g, 6 ms
Connection	Cable 1 m
Weight approx.	260 g

Optional

- Cable with connector
- Extended operating temperature range

ITD 20 A 4

Blind hollow shaft $\varnothing 8$ to $\varnothing 14$ mm
50...1024 pulses per revolution

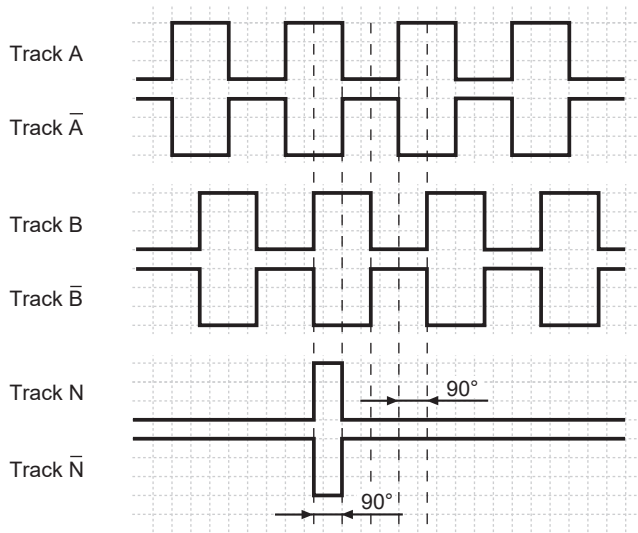
Terminal assignment

Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm ²	UB
white 0,5 mm ²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Trigger level

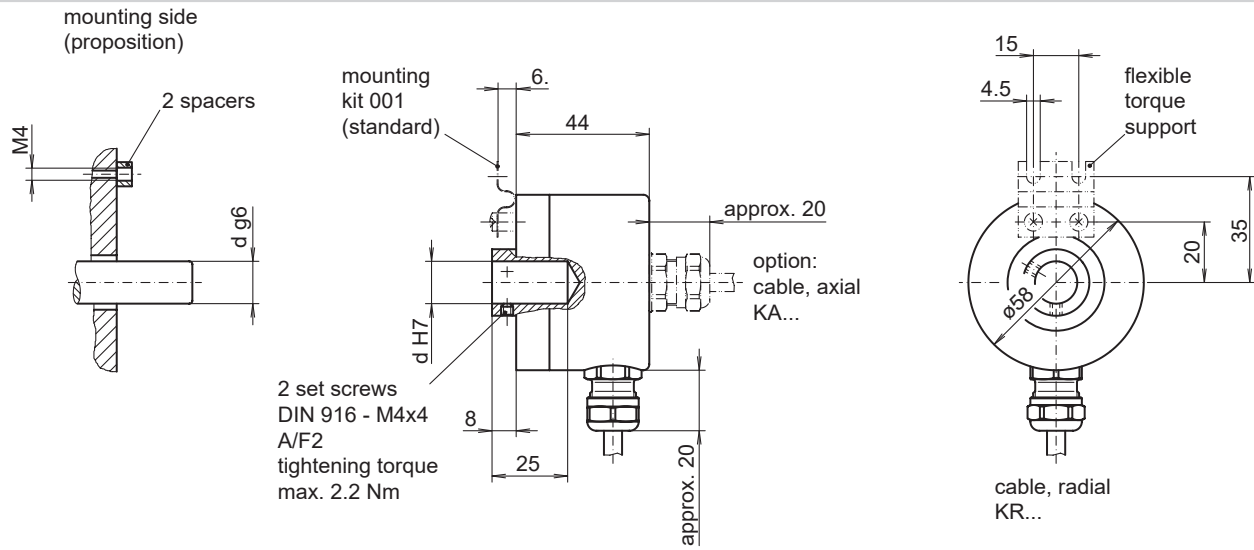
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

ITD 20 A 4

Blind hollow shaft $\varnothing 8$ to $\varnothing 14$ mm
50...1024 pulses per revolution

Dimensions



029- 1

ITD 20 A 4

 Blind hollow shaft $\varnothing 8$ to $\varnothing 14$ mm

50...1024 pulses per revolution

Ordering reference

	ITD 20 A 4	#####	#	NI	#####	#	##	IP65	001
Product	ITD 20 A 4								
Pulse number	ITD 20 A 4								
50		50							
60		60							
64		64							
88		88							
90		90							
100		100							
120		120							
128		128							
200		200							
250		250							
254		254							
256		256							
360		360							
400		400							
500		500							
512		512							
600		600							
1000		1000							
1024		1024							
Voltage supply / signals									
5 VDC / TTL level, linedriver				T					
8...30 VDC / HTL level, push-pull				H					
8...30 VDC / TTL level, linedriver				R					
Output signals									
A, A inv, B, B inv, N, N inv				NI					
Connection									
Cable 1 m, radial								KR1	
Cable 1 m, axial								KA1	
Operating temperature									
-20...+70 °C								S	
-20...+100 °C								E	
Blind hollow shaft									
$\varnothing 8$ mm								8	
$\varnothing 9$ mm								9	
$\varnothing 10$ mm								10	
$\varnothing 12$ mm								12	
$\varnothing 14$ mm								14	
Protection									
IP 65								IP65	
Mounting kit									
Mounting kit 001									001